ABSTRACT

A computer storage system includes director boards which control transfer of data to and between a host computer, a system cache memory and a disk array. The directors are provided with features which enhance system performance and reliability. A hardware emulation controller permits a high performance processor to be used with existing system circuitry. A control store memory is organized with primary and secondary data areas and primary and secondary parity areas. Data is written to both the primary and secondary areas. A read request accesses data in the primary area and performs a retry in the secondary area in the event of a parity error. A power supply system includes on-board marginable power supplies to facilitate testing and power-up by-pass circuits for protection of sensitive circuitry. A system clock configuration employs primary and secondary clocks to ensure redundancy of synchronized timekeeping.